



UCLA CENTER FOR AUTISM RESEARCH AND TREATMENT (CART)

FALL 2020 E-NEWSLETTER

A MESSAGE FROM OUR DIRECTOR



As I reflect on the last six months at our center, I would like to first and foremost wish you and your families well. In this unprecedented time in our civic and personal lives, we are facing many challenges. Our team sends our best wishes. Please know that you are in our thoughts.

Despite all of the current challenges, we have been able to continue offering and developing our research and treatment programs. At CART, our first priority is the health, safety, and well-being of our community. Please check [our website](#) for study updates and information on assessments and treatment during this time of social distancing. For any clinical matters, contact our clinics directly:

- [Child and Adult Neurodevelopmental \(CAN\) Clinic](#) at (310) 794-4008
- [Care and Research in Neurogenetics Clinic \(CARING\) Clinic](#) at (310) 206-7404

To learn more about UCLA's ongoing response to the COVID-19 pandemic, please visit the [UCLA Health website](#).

Our genetics network focused on understanding autism spectrum disorder (ASD) in African American families is back up and running, recruiting remotely. Contact Dr. Erin Graham at (310) 794-4090 for [information on participation in this study](#). Again, please visit our [website](#) to learn more about all of our studies, many of which are allowing remote participation.

We continue to work in earnest to reduce the known racial disparities in autism diagnosis, treatment, and participation in research, and stand in strong solidarity with our community in these efforts ([please click here to read our recent statement on anti-racism](#)).

I also would like to report that CART investigators have played a national role in helping children throughout the United States during the COVID-19 pandemic, including Dr. Shafali Jeste whose program has been [featured in the news](#). In this same vein of good news, we send a shout-out to four CART principal investigators, recognized as trailblazers in honor of [Women's Equality Day](#): Drs. [Susan Bookheimer](#), [Shafali Jeste](#), [Connie Kasari](#), and [Catherine Lord](#). Finally, we are proud to announce that CART director of treatment programs, Dr. Connie Kasari, a trailblazer in her own right, has been elected president of the International Society of Autism Research (INSAR). [Click here](#) to read more about Dr. Kasari's work with INSAR.

In closing, I emphasize that we continue to work at full throttle! In sum, I refer you to our website (www.autism.ucla.edu) for other updates and details about our ongoing studies by CART investigators, how to participate in research, and how to support CART. Please also feel free to call our office at (310) 825-9041 for more information. We hope that you will continue to partner with us.

With best wishes to you and your family and many thanks for your interest and support.

Please stay safe and healthy.

Best regards,

Daniel H. Geschwind, M.D., Ph.D.

Gordon and Virginia MacDonald Distinguished Professor of Neurology, Psychiatry, and Human Genetics
Director, UCLA Center for Autism Research and Treatment (CART)
Senior Associate Dean and Associate Vice Chancellor, Precision Health
David Geffen School of Medicine at UCLA

Dr. Connie Kasari Named 2020 President-Elect for INSAR



Dr. Connie Kasari

Connie Kasari, Ph.D., principal investigator and one of the founding members of the UCLA Center for Autism Research and Treatment (CART) at UCLA, is the 2020 President-Elect for the International Society for Autism Research (INSAR). INSAR is a scientific and professional organization devoted to advancing knowledge about autism. Formed in 2001, it is governed by an elected, volunteer board of directors who oversee all functions of the society. Various committees assist the board in carrying out the INSAR mission. INSAR hosts an annual scientific meeting convened each spring, to exchange and disseminate advances in autism research among scientists and their trainees from around the world. INSAR also publishes the society's research journal, *Autism Research*. Dr. Kasari has plans for INSAR. "INSAR is the largest cross disciplinary and international society for the study of autism, and I am very excited to be part of the executive board again (I was secretary in 2013-15). We will be planning several new initiatives particularly around current world events, including remote learning access and Black Lives Matter," says Dr. Kasari. She began her one-year term

as INSAR President-Elect in May 2020, which will be followed by a two-year term as INSAR President starting in May 2021. Learn more about Dr. Kasari and her leading-edge research by visiting the [Kasari Lab website](#).

In Memory of Edward Ross Ritvo, M.D., Renowned Autism Researcher



Dr. Edward Ritvo

Edward "Ed" Ritvo, M.D., Professor Emeritus in Psychiatry and Biobehavioral Sciences at UCLA, passed away peacefully in his Los Angeles home on June 10, 2020 at the age of 90. He was an internationally known child psychiatrist who, with colleagues, formed the vanguard of UCLA researchers establishing the biomedical basis of autism in the 1960's, despite the prevailing psychological theories of the day. Adventurous in life and work, he was a collegiate downhill skier, mountaineer, and rower who would later break new ground in identifying the role of genetics, sleep and neurophysiological differences, perinatal risk factors, and biomarkers relating to autism and autism risk.

Dr. Ritvo was born in Newton, Massachusetts and received his undergraduate degree from Harvard College and his M.D. from Boston University School of Medicine. He completed a residency in psychiatry at the Massachusetts Mental Health Center in Boston, and child psychiatry fellowship training at the James Jackson Putnam Children's Center in Boston and at the Reiss-Davis Clinic in Los Angeles, before joining the faculty at UCLA in 1962. From 1958 to 1961, he was a captain in the United

States Army, serving as an army psychiatrist in Texas. Dr. Ritvo spent his entire academic career as a professor, unit director, and researcher at UCLA's Neuropsychiatric Institute, helping to lead its transformation from state hospital to become one of the leading psychiatry programs in the world. He published more than 100 papers and chapters devoted to autism and child psychiatry, as well as a memoir of his army experience and children's books, despite his claim of having dyslexia. His work contributed significantly to contemporary approaches to diagnosis and assessment, and spawned potential pathways for intervention. Dr. Ritvo was the recipient of several awards, including the Blanche Ittleson Award from the American Psychiatric Association, the George Tarjan Award from the American Academy of Child and Adolescent Psychiatry, and the Lifetime Achievement Award from the International Society for Autism Research.

As a colleague, Dr. Ritvo was fun-loving, optimistic, eternally irreverent, and always full of new ideas and anecdotes, truly "larger than life." The UCLA Department of Psychiatry has endowed a special annual Ritvo Lectureship to honor his legacy, achievements, and contributions to UCLA. A memorial service at UCLA is planned for a future date to be announced.

HIGHLIGHTS

CART Awards Pilot Grants to Drs. Xia Yang and Abigail Dickinson



Dr. Xia Yang and Dr. Abigail Dickinson

CART funds one-year pilot and/or feasibility studies for biomedical, epidemiological, or behavioral research. This funding has been made available through support by UCLA Department of Psychiatry and Biobehavioral Sciences, the UCLA Clinical and Translational Science Institute, UCLA Intellectual and Developmental Disabilities Research Center, and the National Institutes of Health Autism Centers of Excellence program. The purpose of these awards is to foster interactions and interdisciplinary research projects in the basic and clinical areas of autism.

This year, CART has awarded pilot grants to Xia Yang, Ph.D., and Abigail Dickinson, Ph.D. Dr. Yang, a professor of integrative biology and physiology at UCLA, will use big data to understand brain gene networks and predict drugs for autism spectrum disorders (ASD). Dr. Dickinson, an assistant research neuroscientist in the Semel Institute for Neuroscience and Human Behavior at UCLA, will investigate early functional connectivity differences that bridge genetic pathways to autism. To learn more about their pioneering investigations, [click here](#).

Sigman Scholars Program Provides Unique Experience for Undergraduates to Work with CART Faculty



Kristal Orta Martinez and Sapna Ramappa

Undergraduate students at UCLA are offered a unique opportunity to participate in research with CART faculty through the CART Sigman Scholars Summer Program, in which selected students are paired with a CART faculty member and work in their lab. This program is designed to provide a rigorous, in-depth research experience for those interested in pursuing a career focused in autism spectrum disorder (ASD). Students may work in fields of basic and clinical research, such as genetics, psychology, psychiatry, neuroscience, and education. The 2020 CART Sigman Scholar awardees are Kristal Orta Martinez and Sapna Ramappa.

Kristal Orta Martinez is a first-generation Latina born and raised in South Los Angeles. She grew up as the eldest sister of two autistic siblings and her life experience has shaped her career and research interests while at UCLA. Ms. Orta Martinez says, “I have recognized many disparities regarding education, healthcare and services for the Latinx autistic community. The encounters I have faced alongside my autistic siblings have ignited a research passion of mine to develop interventions and therapies targeted at the Latinx autism community.” As a CART Sigman Scholar, Ms. Orta Martinez will work under the mentorship of Dr. Wilson on a project to better understand motor trajectories in infants at risk for neurodevelopmental disorders.

Sapna Ramappa is an incoming third-year undergraduate student at UCLA majoring in human biology and society and minoring in public health. “From a young age, I was curious about neuro-atypicalities as I heard the words ‘special’ and ‘mentally disabled’ thrown around carelessly to refer to my family friend who I soon found out had autism. After recognizing the rampant stigmatization of autism in my own community, I sought to understand what autism is,” says Ms. Ramappa. Prior to entering UCLA, she worked with various after-school programs and workshops for youth with developmental disorders. She says, “These moments have encouraged me to learn more about the biological basis of neurodevelopment and its clinical applications.” Working under the mentorship of Dr. Shulamite Green, Ms. Ramappa’s project will involve analyzing the relationship between psychophysiological and behavioral responses to aversive sensory stimulation during the Sensory Processing 3-Dimensional (SP3D) assessment in comparison with the participants’ emotional and sensory regulation. Through this project, she hopes to find which experimental processes best measure sensory over-responsivity and physiological arousal, as objective measurements of sensory processing have been largely understudied.

To read more about these research projects and the CART Sigman Scholars Program, [click here](#).

AIR-B 4 Will Continue to Engage Families and Communities in Effective Evidence-Based ASD Interventions



AIR-B team at the 2019 Autism Conference

For the fourth time, Dr. Connie Kasari has obtained funding for the Autism Intervention Research Network for Behavioral Health (AIR-B 4), which she has led since 2008. The University of California, Davis; University of Pennsylvania; University of Rochester; Drexel University; University of Kansas; and the University of Washington are sites also participating in this new grant. AIR-B 4 uses community-partnered participatory research and implementation science to disseminate interventions that engage families and communities in effective evidence-based autism spectrum disorder (ASD) interventions. Since 2008, the AIRB network has conducted multiple studies in the community with primarily low income, minority families

with children with ASD (over 3,000 families). AIR-B 4 will continue this tradition with greater focus on implementation strategies to sustain interventions in the community.

The first study, *Mind the Gap*, focuses on providing resources and support for families soon after a child is diagnosed with ASD and under the age of 8, which has been shown to improve family empowerment and increases access to services. In their second study, *Remaking Recess*, researchers will help children with ASD improve their peer relationships at school. In the third study, *Self-Determination Learning Model of Instruction*, adolescents with ASD can gain self-determination, which is the ability to act as a causal agent in one's own life in order to attain goals. AIR-B 4 will also continue activities from previous grants including community conferences for families of children with autism. The Los Angeles conference is in partnership with Healthy African American Families, and usually held in March at Holman United Methodist Church in South Los Angeles. To learn more about the AIR-B 4, contact Consuelo Garcia at cogarcia@mednet.ucla.edu.

Using a New CRISPR Approach to Rescue the Effects of Autism Risk Genes



Dr. George Chen

The Geschwind Lab continues to develop insights into the molecular mechanisms of different genetic forms of autism spectrum disorder (ASD). Previous lab research engaged families with one or more affected children to identify *de novo* mutations (alterations in genes that newly arise in the child and are not present in either parent's DNA) that increase ASD risk, which account for approximately 20 percent of ASD cases. The majority of these mutations are either known to or predicted to lead to the loss of one copy of the gene (of the two normally inherited). This in turn leads to disease through a condition called haploinsufficiency, in which a single copy of a functional gene is not enough to maintain normal function. The Geschwind Lab is now exploring the possibility that the effects of these haploinsufficient mutations on high-risk ASD genes could be ameliorated by activating the non-mutant copy of the gene to restore expression to normal levels. To do so, the lab is employing a recent advance in gene editing technology known as CRISPR-A.

Results from this study will enhance understanding of the effects of haploinsufficiency in ASD risk genes, the mechanisms whereby they impact neuronal development, and provide a proof of principle for the use of gene activation as a therapeutic intervention in patients. To learn more about the details of this study, [click here](#).

CLINICAL SERVICES

What's Happening at the CAN and CARING Clinics?



The CAN Clinic reopened in-person operations on July 1, after moving all clinical services to telehealth following the COVID-19 Safer at Home orders. The CAN Clinic continues to support individuals with neurodevelopmental disorders and their families during this particularly challenging time. While many individuals and families are receiving therapy, consultations, and medication management via telehealth, the CAN Clinic is also providing comprehensive multidisciplinary diagnostic evaluation through a hybrid approach of telehealth and in-person assessments. For more information, please contact Maria Shavers at clinic@autism.ucla.edu.

The CARING Clinic team also remains committed to providing excellent care and services for patients during this time. The team is seeing patients through telehealth visits, in which where they continue to provide evaluations in neurology, genetics, psychiatry, educational consulting and speech/language consultations. For more information, please contact Careese Stephens at cmstephens@mednet.ucla.edu.

TRAINING

BOSA Training Provides Instruction for ASD Assessment Measures During COVID-19



BOSA Training Team

Dr. Catherine Lord and her lab team at UCLA have been busy responding to the global need for a socially-distanced assessment measure for ASD during COVID-19 restrictions, because the gold-standard Autism Diagnostic Observation Schedule (ADOS-2) is not valid if done with a mask or other personal protective equipment. In collaboration with Dr. So Hyun “Sophy” Kim at Weill Cornell Medicine, they have created the Brief Observation of Symptoms of Autism (BOSA), a 12- to 14-minute interaction between an individual and their parent or therapist using a standardized set of materials, adapted from the ADOS-2 and Brief Observation of Social Communication

Change (BOSCC). So far, more than 5,000 people have registered for the online trainings or watched the recorded training on CART’s YouTube channel, and 2,500 people have signed up to use the measure. To learn more about the BOSA or watch the online training, visit the [CART BOSA Training website](#).

WANT TO SUPPORT LEADING-EDGE RESEARCH AND COMPASSIONATE PATIENT CARE AT THE UCLA CENTER FOR AUTISM RESEARCH & TREATMENT? QUESTIONS? COMMENTS?

Please contact Lauren Bayans at (310) 794-3913 or LBayans@mednet.ucla.edu

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If you do not wish to receive further information from UCLA CART, please either call us (310) 825-9041 or email us at info@autism.ucla.edu.